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DEPARTMENT OF PHARMACOLOGY

TELEPHONE: ASHLAND 4-1800

March 29, 1949

Dr. Arthur Kornberg  
Experimental Biology and Medicine Institute  
National Institutes of Health  
Bethesda 14, Maryland

Dear Arthur:

Please accept my best, if delayed, thanks for the sample of TPN which arrived safely in due course. I am also glad to have the details of the counter current purification, it looks pretty good. We are about to make a batch of the 1st acetone precipitate and will try counter current on it. There is a machine in Chemistry.

We got a copy of Rosenthal's acetoacetic acid method. Unfortunately, oxalacetic reacts as much as acetoacetic and, for determination of the latter in the presence of the former, the method may require a special study. However, it will be quite useful for acetoacetic in the absence of interfering substances and I am glad to have it.

There has not been much progress recently in the citrate synthesis. We found E. coli extracts very active in forming citrate from acetate + ATP + OAA. There seemed to be "funny" catalytic regeneration of ATP which disappeared after rough fractionation with  $\text{AmSO}_4$  and prolonged dialysis. In view of this, I am not sure that earlier experiments with extracts indicating synthesis from the product of the phosphoroclastic reaction can be interpreted in that way. I guess we shall have to isolate (or try to isolate) the "active" acetate formed both by the phosphoroclastic reaction and by acetate + ATP. Of course we should like to get evidence for the assumed formation of citryl phosphate. We sent a note to J.B.C. with the results on pigeon liver.

I was very pleased that you found good activity in pig liver for the  $\text{NMN} + \text{ATP} \rightarrow \text{DPN}$  reaction and I am sure you will be able to demonstrate the participation of pyro-P without too much trouble.

Dr. A. Kornberg

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March 29, 1949

I know exactly how you feel about sitting at a desk all day. I am in the same boat working on the article for Sumner & Myrbäck's book. You should not be too unhappy about it, however, since that gives you a chance to write up your papers.

We shall be seeing each other soon and I look forward to it. Meanwhile my best to everybody in the lab with our fondest regards to the Kornberg family.

Yours,



Severo Ochoa

SO:ims